REMARKS

Claims 1-9, 16-22, 54-80 are pending. The Office Action mailed June 11, 2003 has been carefully considered. Applicants appreciate that the Examiner has allowed Claims 1-9, 16-22 and 67-71. Applicants request that the Examiner consider the above amendments and the following remarks, and pass the application to allowance.

Response to 35 U.S.C. §102(b) Rejections:

Claims 54-57, 60, 61, 63, and 64 were rejected under 35 U.S.C. §102(b) as being anticipated by Maus et al. (U.S. Patent 5,785,931).

Claim 54 recites a method of producing a multilayer metal foil product. The method includes combining a plurality of previously patterned continuous metal foil layers to form an advancing continuous stack of spaced apart metal foil layers; scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals wherein the score or crease alternates in a left and a right direction; causing the continuous stack of spaced apart metal foil layers to fold in alternating directions at said scores or creases; and piling the alternately folding stack in a zigzag fashion to form a z-fold pack of the continuous stack of spaced apart metal foil layers. (Emphasis added).

Maus et al. relates to a metal honeycomb body which is disposed within a jacket member. In one embodiment, as shown in FIG. 17, "a stamping device 60 stamps striplike parts out of the strips 3 and 4 from the edges 39 inward, only a narrow web 65 (FIG. 18) in the longitudinal axis of the strips 3 and 4 remains. In the further course of the apparatus, strip segments 61' (defined between two stamped-out, narrow webs 65) are rotated by 180° about the longitudinal axis relative to the strip segments 61, in the course of which the webs 65 are wound up in a spiral. In a subsequent folder apparatus, the strip segments 61 and 61' , twisted counter to one another, are stacked up. The webs 65 are located a the apex points 66 of the loops. Accordingly, a stack is formed from alternating

smooth and corrugated sheet metal layers." Col. 12, lines 8-20. Maus et al., however, does not teach or suggest scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals wherein the score or crease alternates in a left and a right direction. Rather, the stamping device stamps strip like part out of the strip leaving only a narrow web 65 of material between segments which is then rotated by 180 degrees. In addition, Maus et al. does not teach or suggest combining a plurality of previously patterned continuous metal foil layer. Rather, Maus et al. combines one corrugated strip 4 and one smooth strip 3. Accordingly, since Maus et al. removes a portion of the metal foil layer and does not teach or suggest scoring or creasing the advancing continuous stack of spaced apart metal foil layers, Claim 54 should be allowable. Claims 55, 56, 57, 60 and 61 are dependent from Claim 54 and should be allowed for the reasons set forth above.

Claim 63 recites a method of producing a multilayer metal foil product. The method includes combining a plurality of continuous flat metal foil layers to form an advancing continuous stack of metal foil layers and imparting a pattern to all layers of the stack to form an advancing stack of patterned and nested metal foil layers; scoring or creasing the advancing stack of patterned and nested metal foil layers across at least a portion of the width of the stack at predetermined intervals; causing the stack of patterned and nested metal foil layers to fold in alternating directions at said scores or creases; and piling the alternately folding stack in a zigzag fashion to form a z-fold pack of the stack of patterned and nested metal foil layers. (Emphasis added.)

As set forth above, since Maus et al. does not teach or suggest scoring or creasing the advancing stack of patterned and nested foil layers across at least a portion of the width of the stack at predetermined intervals, Claim 63 should be allowable. Claim 64 is dependent from Claim 63 and should be allowable for the reasons set forth above.

Response to 35 U.S.C. §103(a) Rejections:

Claims 58, 62 and 65 were rejected under 35 U.S.C. §103(a) as being unpatentable over Maus et al.

Claims 58 and 62 are dependent from Claim 54 and recite the method according to Claim 54, further comprising combining a fiber layer between two of the metal foil layers, and wherein scoring or creasing is only on a top layer of the continuous stack of spaced apart metal foil layers, respectively. Meanwhile, Claim 65 recites the method according to Claim 63, further comprising combining a fiber layer between two of the metal foil layers.

As set forth above, Maus et al. does not teach or suggest scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals. Accordingly, since Claims 58 and 62, and Claim 65 depend from Claims 54 and 63 respectively, Claims 58, 62 and 65 should be allowable.

Claims 59, 66, and 72-80 were rejected under 35 U.S.C. §103(a) as being unpatentable over Maus et al. in view of Cornelison et al. (U.S. Patent No. 4,711,009).

Cornelison et al. relates to a process and apparatus for making a catalytic converter element or core especially adapted for treatment of exhaust from an internal combustion engine, whether spark or compression ignited.

Claims 59 and 66 recites the method according to Claims 54 and 63 wherein the step of scoring or creasing is performed by a plurality of rotating members having a respective male and female position.

As set forth above, Maus et al. does not teach or suggest scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals. Accordingly, since Claims 59 and 66, depend from Claims 54 and 63 respectively, Claims 59 and 66 should be allowable.

Claim 72 recites a method of producing a multilayer metal foil product. The method includes combining a plurality of previously patterned continuous metal foil layers to form an advancing continuous stack of spaced apart metal foil layers; scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals wherein the score or crease alternates in a left and a right direction, wherein the scoring or creasing is performed by a plurality of rotating members having a respective male and female positions, and wherein the rotating members are periodically activated and rotated one revolution at predetermined intervals to produce an alternating score or crease across the substantial width of the continuous stack of spaced apart metal foil layers; causing the continuous stack of spaced apart metal foil layers to fold in alternating directions at said scores or creases; and piling the alternately folding stack in a zigzag fashion to form a z-fold pack of the continuous stack of spaced apart metal foil layers.

As set forth above, Maus et al. does not teach or suggest scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals. Accordingly, Claim 72 should be allowable. Claims 73-76 are dependent from Claim 72 and should be allowable for the reasons set forth above.

Claim 77 as amended recites the method according to Claim 59, wherein the rotating members are stationary, except when they are periodically activated. Claim 78 recites the method according to Claim 77, wherein the rotating members are rotated one revolution at a predetermined interval to produce the alternating score or crease.

Claim 79 recites the method according to Claim 66, wherein the rotating members are stationary, except when they are periodically activated. Claim 80 recites the method according to Claim 79, wherein the rotating members are rotated one revolution at a predetermined interval to produce the alternating score or crease.

As set forth above, Maus et al. does not teach or suggest scoring or creasing the advancing continuous stack of spaced apart metal foil layers across at least a portion of the width of the stack at predetermined intervals. Accordingly, since Claims 77 and 78, 79 and 80 depend from Claims 59 and 66 respectively, Claims 77-80 should be allowable.

CONCLUSION

It is respectfully submitted that Claims 1-9, 16-22, 54-80 are presently in condition for immediate allowance, and such action is requested. If, however, any matters remain that could be clarified by Examiner's Amendment, the Examiner is cordially invited to contact the undersigned by telephone at the number below.

Respectfully submitted,

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